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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,719	09/05/2003	Stephen M. Kroon	D/ A3379	8793

25453 7590 02/08/2006

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ROCHESTER, NY 14644

EXAMINER
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CASCHERA, ANTONIO A

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/655,719

Applicant(s)

KROON, STEPHEN M.

Examiner

Antonio A. Caschera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.\*
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/11/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 10/11/05 was filed after the mailing date of the Non Final Rejection on 08/11/05. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kisor et al. (EP 0683599A1).

In reference to claims 1, 3 and 8, Kisor et al. discloses a method and apparatus for processing a dithered bi-level image to produce a compressed image (see column 1, lines 46-47). Kisor et al. discloses first converting the bi-level image into a block pixel count data file that specifies or lists the number of black pixels contained in blocks of pixels in the dithered bi-level image (see column 4, lines 36-40). Note, the Office interprets the number of black pixels of Kisor et al. equivalent to the “marked pixel count M” and the blocks of pixels of Kisor et al.

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equivalent to the “plurality of N-pixel tiles” of Applicant’s claims. Further, Kisor et al. explicitly states that such block pixel processing is associated with image data taken from a photograph using a scanner and then sent through a dithering process or image data which is, “pre-halftoned” (see column 8, lines 9-22 and #60, 62 and 64 of Figure 2). Kisor et al. also discloses decompressing the compressed block pixel count data file by comparing 4x4 blocks of pixels with pattern sets which represent the 256 different ways in which the human eye can perceive the shades of gray (see columns 10-11, lines 43-34). Note, the Office interprets such patterns of Kisor et al. functionally equivalent to the reference tiles since such patterns represent all possible regular viewing of gray colors by the human eye. Kisor et al. further discloses matching a pattern with a block of pixels using the block pixel count number and the same number of black pixels in the pattern (see column 11, lines 35-55). Further note, in reference to claim 3, the photograph image used in producing the dither bi-level image of Kisor et al. is seen as functionally equivalent to the, “original data” of Applicant’s claim 3. Also, Kisor et al. discloses the photograph image being converted from a grey-scale image, or an image representing grey tones, into a dithered bi-level image (see column 8, lines 16-26), such conversion from grey tones to dithered bi-level values inherently comprising a, “pre-determined threshold value array” for judging which grey tones should be set to black or white dots in the bi-level image.

In reference to claims 2 and 4, Kisor et al. discloses all of the claim limitations as applied to claims 1 and 3 respectively above. Kisor et al. also discloses decompressing the compressed block pixel count data file by comparing 4x4 blocks of pixels with pattern sets which represent the 256 different ways in which the human eye can perceive the shades of gray (see columns 10-

11, lines 43-34). Note, the Office interprets such patterns of Kisor et al. functionally equivalent to the reference tiles since such patterns represent all possible regular viewing of gray colors by the human eye. Kisor et al. further discloses matching a pattern with a block of pixels using the block pixel count number and the same number of black pixels in the pattern (see column 11, lines 35-55).

In reference to claims 5 and 7, Kisor et al. discloses all of the claim limitations as applied to claim 3 above. Kisor et al. also discloses decompressing the compressed block pixel count data file by comparing 4x4 blocks of pixels with pattern sets which represent the 256 different ways in which the human eye can perceive the shades of gray (see columns 10-11, lines 43-34). Note, the Office interprets such patterns of Kisor et al. functionally equivalent to the reference tiles since such patterns represent all possible regular viewing of gray colors by the human eye. Kisor et al. also discloses that patterns are represented using grey levels indicated by the number of black pixels, the number of black pixels referring to the dithered bi-level image (see columns 10-11, lines 50-8). Kisor et al. also discloses for a 4x4 pixel block, there are 16 different patterns produced (see #110 of Figure 5).

### *Response to Arguments*

3. Applicant's arguments, see page 5 of Applicant's Remarks, filed 11/14/05, with respect to the 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection of claims 1, 3 and 8 have been fully considered and are persuasive. The 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection of claims 1, 3 and 8 of has been withdrawn since antecedent basis for all of the limitations has been established and corrected for in these claims.

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4. Applicant's arguments, see pages 5-9 of Applicant's Remarks, filed 11/14/05, with respect to the rejection(s) of claim(s) 1, 3 and 8 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kisor et al. (EP 0683599A1).

#### *References Cited*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Cooper et al. (U.S. Patent 6,020,978)
  - Cooper et al. discloses a method and apparatus for color halftoning using threshold arrays.

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778.

**Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**571-273-8300 (Central Fax)**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

A handwritten signature in black ink, reading "Matthew C. Bella". The signature is fluid and cursive, with the first name "Matthew" being more prominent and the last name "Bella" following in a similar style.

MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

aac

*SPC*  
1/24/06